

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: 6/21/04

Signature:

Maura A. Gallagher
(Maura A. Gallagher)

Docket No.: PEPT-P01-005
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Rasmussen et al.

Application No.: 10/799005

Confirmation No.: 7191

Filed: March 11, 2004

Art Unit: 1646

For: IDENTIFICATION OF SELF AND NON-
SELF ANTIGENS IMPLICATED IN
AUTOIMMUNE DISEASES

Examiner: Not Yet Assigned

INFORMATION DISCLOSURE STATEMENT (IDS)

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR 1.97(b)(3)).

A copy of each reference on the PTO/SB/08 is attached.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this

Application No.: 10/799005

Docket No.: PEPT-P01-005

application by this firm) to our Deposit Account No. 18-1945, under Order No. PEPT-P01-005.

A duplicate copy of this paper is enclosed.

Dated: June 21, 2004

Respectfully submitted,

By Anita Varma

Anita Varma

Registration No.: 43,221

ROPES & GRAY LLP

One International Place

Boston, Massachusetts 02110-2624

(617) 951-7000

(617) 951-7050 (Fax)

Attorneys/Agents For Applicant



PTO/SB/08a/b (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Application Number	10/799005
				Filing Date	March 11, 2004
				First Named Inventor	James Rasmussen
				Art Unit	1646
				Examiner Name	Not Yet Assigned
Sheet	1	of	5	Attorney Docket Number	PEPT-P01-005

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	AA	US-5,130,297	07-04-2002	Sharma, et al.	
	AB	US-5,194,425	03-16-1993	Sharma, et al.	
	AC	US-5,874,531	02-23-1999	Strominger, et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
	AD	WO-WO 90/08161	07-26-1990	The Blood Center of Southeastern Wisconsin		
	AE	WO-WO 92/16234	10-01-1992	The Trustees of the University of Pennsylvania		
	AF	WO-WO 92/18150	10-29-1992	Anergen, Inc., et al.		
	AG	WO-WO 93/10813	06-10-1993	The United States of America		
	AH	WO-WO 94/05303	03-17-1994	Board of Regents of the University of Oklahoma		
	AI	WO-WO 94/06828	03-31-1994	Washington University School of Medicine		
	AJ	WO-WO 95/12313	05-11-1995	Pathogenesis Corporation, et al.		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. **CITE NO.: Those patent(s) or publication(s) which are marked with an double asterisk (**) next to the Cite No. are not supplied because they were previously cited by or submitted to the Office in a prior application relied upon in this application for an earlier filing date under 35 U.S.C. 120. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials [*]	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T ²
	AK	Ahmed, A. R., Yunis, E. J., Khatri, K., Wagner, R., Notani, G., Awdeh, Z., & Alper, C. A. (1990). Major histocompatibility complex haplotype studies in Ashkenazi Jewish patients with Pemphigus vulgaris. Proc. Natl. Acad. Sci. (USA) 87: 7658.			
	AL	Ahmed, A. R., Wagner, R., Khatri, K., Notani, G., Awdeh, Z., and Yunis, E. J. (1991). "Major histocompatibility complex haplotypes and class II genes in non-Jewish patients with Pemphigus vulgaris." Proc. Natl. Acad. Sci. (USA) 88: 5056.			
	AM	Alexander, J. et al., "Functional Consequences of Engagement of the T Cell Receptor by Low Affinity Ligands," J. Immunol., 150(1): 1-7 (1993).			
	AN	Allegretta, M., Nicklas, J. A., Sriram, S. and Albertini, R. J. (1990). "T cells responsive to myelin basic protein in patients with multiple sclerosis." Science 247: 718-721.			
	AO	Amagai, M., Klaus-Kovtun, V., & Stanley, J. R. (1991). "Autoantibodies against a novel epithelial cadherin in Pemphigus vulgaris, a disease of cell adhesion." Cell 67: 869-877.			
	AP	Amagai, M., Karpati, S., Prussick, R., Klaus-Kovtun, V., & Stanley, J. R. (1992). "Autoantibodies against the amino-terminal cadherin-like binding domain of Pemphigus			

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

Substitute for form 1449A/B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete If Known	
				Application Number	10/799005
				Filing Date	March 11, 2004
				First Named Inventor	James Rasmussen
				Art Unit	1646
				Examiner Name	Not Yet Assigned
Sheet	2	of	5	Attorney Docket Number	PEPT-P01-005

		vulgaris antigen are pathogenic." J. Clin. Invest. 90: 919.	
AQ		Bankier et al., "Sequence Analysis for the 17, 166 Base-pair EcoRI fragment C of B95-8 Epstein-Barr Virus." Mol. Biol. Med. 1: 21-45 (1983).	
AR		Brewerton, D. A., Hart, F. D., Caffrey, M., Nicholls, A., James, D. C. O., & Sturrock, R. D. (1973). "Ankylosing spondylitis and HL-A 27." Lancet 1: 904.	
AS		Brown, J. H., Jardetzky, T. S., Gorga, J. C., Stern, L. J., Urban, R. G., Strominger, J. L., & Wiley, D. C. (1993). "Three-dimensional structure of the human class II histocompatibility antigen HLA-DR1." Nature 364: 33.	
AT		Brown, L.R. et al., "Recognition of the influenza hemagglutinin by class II MHC-restricted T lymphocytes and antibodies. I. Site definition and implications for antigen presentation and T lymphocyte recognition." J. Immunol., 147(8): 2677-2684 (1991).	
AU		Busch, R., Hill, C. M., Hayball, J. D., Lamb, J. R., Rothbard, J. B. (1991). "Effect of a natural polymorphism at residue 86 of the HLA-DR .beta. chain on peptide binding." J. Immunol. 147:1292-1298.	
AV		Chambers et al., "Antigenic and Molecular Characterization of Subtype H13 Hemagglutinin of Influenza Virus." Virology 172: 180-188 (1989).	
AW		Chicz, R. M., Urban, R. G., Gorga, J. C., Vignali, D. A. A., Lane, W. S., & Strominger, J. L. (1993). "Specificity and promiscuity among naturally processed peptides bound to HLA-DR alleles." J. Exp. Med. 178:27.	
AX		Chicz, R. Et al., "Predominant naturally processed peptides bound to HLA-DR1 are derived from MHC-related molecules and are heterogeneous in size." Nature, 358: 764-768 (1992).	
AY		Datta, A. K., Feighny, R. J., Pagano, J. S. (1980). "Induction of Epstein-Barr virus-associated DNA polymerase by 12-O-tetradecanoylphorbol-13-acetate." J. Biol. Chem. 255: 5120-5125.	
AZ		Dermody et al., "The S2 Gene Nucleotide Sequences of Prototype Strains of the Three Reovirus Serotypes: Characterization of Reovirus Core Protein $\sigma 2$." J. of Virology 65(11): 5721-5721 (1991).	
BA		Epstein, M. A., Achong, B. G. (1977). "Pathogenesis of infectious mononucleosis." Lancet 11: 1270-1272.	
BB		Gregersen, P. K., Silver, J., Winchester, R. J. (1987). "The shared epitope hypothesis. An approach to understanding the molecular genetics of susceptibility to rheumatoid arthritis." Arthritis Rheum. 30: 1205-1213.	
BC		Hammer, J. et al., "Promiscuous and Allele-Specific Anchors in HLA-DR Binding Peptides." Cell, 74: 197-203 (1993).	
BD		Hogenkamp et al., "Nucleotide Sequence of the Right 10% of Adenovirus Type 12 DNA Encoding the Entire Region E4." Nucleic Acids Research 18(10): 3065-3066 (1990).	
BE		Jardetzky, T. S., Lane, W. S., Robinson, R. A., Madden, D. R., & Wiley, D. C. (1991). "Identification of self-peptides bound to purified HLA-B27." Nature 353: 326.	
BF		Jardetzky, T. S. et al., "Peptide binding to HLA-DR1: a peptide with most residues substituted to alanine retains MHC binding." EMBO J., 9(6): 1797-1803 (1990).	
BG		Johnson, R. T., Griffin, D. E., Hirsch, J. S., Wolinsky, J. S., Rodenbeck, S., Lindo De Soriano, I. and Vaisberg, A. (1984). "Measles encephalomyelitis. Clinical and immunological studies." N. Engl. J. Med. 310: 137-141.	
BH		Kaufman, D. L., Clare-Salzler, M., Tian, J., Forsthuber, T., Ting, G. S. P., Robinson, P., Atkinson, M. A., Sercarz, E. E., Tobin, A. J., and Lehmann, P. V. (1993). "Spontaneous loss of T-cell tolerance to glutamic acid decarboxylase in murine insulin-dependent diabetes." Nature 366: 69-72.	
BI		Kurtzke, J. F. (1985). "Epidemiology of multiple sclerosis" in Handbook of clinical neurology Eds. P. J. Vinken, G. W. Bruyn, H. L. Klawans and J. C. Koetsier. Amsterdam/New York, Elsevier Sci. 259-287.	
BJ		Lanchbury, J. S., & Panayi, G. S. (1991). "Genetics of RA: the HLA shared epitope hypothesis and its implications." Br. J. Rheumatol. 30(Suppl 2): 6.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

Substitute for form 1449A/B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>			Complete If Known		
			Application Number	10/799005	
			Filing Date	March 11, 2004	
			First Named Inventor	James Rasmussen	
			Art Unit	1646	
			Examiner Name	Not Yet Assigned	
Sheet	3	of	5	Attorney Docket Number	PEPT-P01-005

BK	Lehmann, P. V., Forsthuber, T., Miller, A. and Sercarz, E. E. (1992). "Spreading of T-cell autoimmunity to cryptic determinants of an autoantigen." <i>Nature</i> 358: 155-157.
BL	Madden, D. R., Gorga, J. C., Strominger, J. L., & Wiley, D. C. (1991). "The structure of HLA-B27 reveals nonamer self-peptides bound in an extended conformation." <i>Nature</i> 353: 321.
BM	Madden, D.R. et al., "The Antigenic Identity of Peptide-MHC Complexes: A Comparison of the Conformation of Five Viral Peptides Presented by HLA-A2." <i>Cell</i> , 75: 693-708 (1993).
BN	Marsh, S. G. E. and Bodmer, J. G. (1992). "HLA class II nucleotide sequences, 1992." <i>Human Immunol.</i> 35: 1-17.
BO	Martin, R., Jaraquemada, D., Flerlage, M., Richert, J., Whitaker, J., Long, E. O., McFarlin, D. E. and McFarland, H. F. (1990). "Fine specificity and HLA restriction of myelin basic protein-specific cytotoxic T cell lines from multiple sclerosis patients and healthy individuals." <i>J. Immunol.</i> 145: 540-548.
BP	McGeoch et al., "DNA sequence of the region in the genome of herpes simplex virus type 1 containing excinuclease gene and neighbouring genes." <i>Nucleic Acid Research</i> , 14(8): 1434-1448 (1986).
BQ	O'Sullivan, D. et al., "On The Interaction of Promiscuous Antigenic Peptides With Different DR Alleles; Identification of common structural motifs." <i>J. Immunol.</i> , 147(8): 2663-2669 (1991).
BR	Oldstone, M. B. A. (1990). "Molecular mimicry and autoimmune disease." <i>Cell</i> 50: 819-820.
BS	Olerup, O., Hillert, J., Fredrickson, S., Olsson, T., Kam-Hansen, S., Moeller, E., Carlsson, B. and Wallin, J. (1989). "Primary chronic progressive and relapsing/remitting multiple sclerosis: Two immunogenetically distinct disease entities." <i>Proc. Natl. Acad. Sci. (USA)</i> 86: 7113-7117.
BT	Oltersdorf et al., "Molecular Cloning and Characterization of Human Papillomavirus Type 7 DNA." <i>Virology</i> , 149: 247-250 (1986).
BU	Ota, K., Matsui, M., Milford, E. L., Mackin, G. A., Weiner, H. L. and Hafler, D. A. (1990). "T-cell recognition of an immunodominant myelin basic protein epitope in multiple sclerosis." <i>Nature</i> 346: 183-187.
BV	Pette, M., Fujita, K., Wilkinson, D., Altmann, D. M., Trowsdale, J., Giegerich, G., Hinkkanen, A., Epplen, J. T., Kappos, L. and Wekerle, H. (1990). "Myelin autoreactivity in multiple sclerosis: Recognition of myelin basic protein in the context of HLA-DR2 products by T lymphocytes of multiple sclerosis patients and healthy donors." <i>Proc. Natl. Acad. Sci. (USA)</i> 87: 7968-7972.
BW	Protti, M. P., Manfredi, A. A., Horton, R. M., Bellone, M., Conti-Tronconi, B. M. (1993). "Myasthenia gravis: recognition of a human autoantigen at the molecular level." <i>Immunol. Today</i> 14: 363.
BX	Ray, C. G., Palmer, J. P., Crossley, J. R. and Williams, R. H. (1980). "Coxsackie B virus antibody responses in juvenile-onset diabetes mellitus." <i>Clin. Endocrinol. (Oxf)</i> 12: 375-378.
BY	Reay, P. et al., "Use of Global Amino Acid Replacements to Define the Requirements for MHC Binding and T Cell Recognition of Moth Cytochrome c (93-103)." <i>J. Immunol.</i> , 150: 3946-3957 (1994).
BZ	Rose, N. R., Wolfgram, L. J., Herskowitz, A. and Beisel, K. W. (1986). "Postinfectious autoimmunity: Two distinct phases of coxsackie B3-induced myocarditis." <i>Ann. N.Y. Acad. Sci.</i> 475: 146-156.
CA	Rotschke, O., & Falk, K. (1991). "Naturally-occurring peptide antigens derived from the MHC class-I-restricted processing pathway." <i>Immunol. Today</i> 12: 447.
CB	Rotschke, O. et al., "Origin, Structure and Motifs of Naturally Processed MHC Class II Ligands." <i>Current Opinion Immunol.</i> , 6: 45-51 (1994).
CC	Scharf, S. J., Long, C. M., & Erlich, H. A. (1988). "Sequence analysis of the HLA-DR.beta. and DQ.beta. loci from three Pemphigus vulgaris patients." <i>Human Immunol.</i> 22: 61.
CD	Schlosstein, L., Terasaki, P. I., Bluestone, R., & Pearson, C. M. (1973). "High association of an HL-A antigen, W27, with ankylosing spondylitis." <i>N. Engl. J. Med.</i> 288: 704.
CE	Schwarz, E., Freese, U. K., Gissman, L., Mayer, W., Roggenbuck, B., Stremlau, A., zur

Examiner Signature	Date Considered
--------------------	-----------------

Substitute for form 1449A/B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/799005
				Filing Date	March 11, 2004
				First Named Inventor	James Rasmussen
				Art Unit	1646
				Examiner Name	Not Yet Assigned
Sheet	4	of	5	Attorney Docket Number	PEPT-P01-005

		Hausen, H. (1985). "Structure and transcription of human papillomavirus sequences in cervical carcinoma cells." <i>Nature</i> 314: 111-114.	
	CF	Sinha, A. A., Brautbar, C., Szafer, F., Friedmann, A., Tzfon, E., Todd, J. A., Steinman, L., & McDevitt, H. O. (1988). "A newly characterized HLA-DQ.beta. allele associated with Pemphigus vulgaris." <i>Science</i> 239: 1026-1029.	
	CG	Sloan-Lancaster, J., Evavold, B. D., and Allen, P. M. (1993) "Induction of T-cell anergy by altered T-cell-receptor ligand on live antigen-presenting cells." <i>Nature</i> 363: 156-159.	
	CH	Sloan-Lancaster, J., Shaw, A. S., Rothbard, J. B. and Allen, P. M. (1994). "Partial T cell signalling: Altered Phospho-zeta. and lack of Zap70 recruitment in APL-induced T cell anergy." <i>Cell</i> 79: 913-922.	
	CI	Spielman, R. S., & Nathanson, N. (1982). "The genetics of susceptibility to multiple sclerosis." <i>Epidemiol. Rev.</i> 4: 45.	
	CJ	Spruance, S. (1985). "Pathogenesis of herpes simplex labialis: Experimental induction of lesions with UV light." <i>J. Clin. Microbiol.</i> 22: 366-368.	
	CK	Steinman, L. "Escape from 'Horror Autotoxicus': Pathogenesis and Treatment of Autoimmune Disease." <i>Cell</i> , 80(1): 7-10 (1995).	
	CL	Stern, L. J., Brown, J. H., Jardetzky, T. S., Urban, R., Strominger, J. L., & Wiley, D. C. (1994). "Crystal structure of the human class II MHC protein HLA-DR1 complexed with an influenza virus peptide." <i>Nature</i> 368: 215.	
	CM	Takeichi, M. (1990). "Cadherins: A molecular family important in selective cell-cell adhesion." <i>Ann. Rev. Biochem.</i> 59: 237.	
	CN	Tian, J., Lehmann, P. V. and Kaufman, D. L. (1994). "T cell cross-reactivity between coxsackievirus and glutamate decarboxylase is associated with a murine diabetes susceptibility allele." <i>J. Exp. Med.</i> 180: 1979-1984.	
	CO	Tisch, R., Yang, X.-D., Singer, S. M., Liblau, R. S., Fugger, L., and McDevitt, H. O. (1993). "Immune response to glutamic acid decarboxylase correlates with insulinitis in non-obese diabetic mice." <i>Nature</i> 366: 72-75.	
	CP	Todd, J. A., Bell, J. I., & McDevitt, H. O. (1987). "HLA-DQ.beta. gene contributes to susceptibility and resistance to insulin-dependent diabetes mellitus." <i>Nature</i> 329: 599.	
	CQ	Tovey, M. G., Lenoir, G. and Begon-Lours, J. (1978). "Activation of latent Epstein-Barr virus by antibody to human IgM." <i>Nature</i> 276: 270-272.	
	CR	Tsurumi et al. "A Single-Base Change Within the DNA Polymerase Locus and Herpes Simplex Virus Tegy 2 Can Confer Resistance to Aphidicolin." <i>J. of Virology</i> , 61(2): 388-394 (1987).	
	CS	Vogt, A. B., Kropshofer, H., Kalbacher, H., Kalbus, M., Rammensee, H.-G., Coligan, J. E. and Martin, R. (1994). "Ligand motifs of HLA-DRB5*0101 and DRB1*1501 molecules delineated from self-peptides." <i>J. Immunol.</i> 151: 1665-1673.	
	CT	Wucherpfennig, K. W., Sette, A., Southwood, S., Oseroff, C., Matsui, M., Strominger, J. L. and Hafler, D. A. (1994a). "Structural requirements for binding of an immunodominant myelin basic protein peptide to DR2 isotypes and for its recognition by human T cell clones." <i>J. Exp. Med.</i> 179: 279-290.	
	CU	Wucherpfennig, K. W., Zhang, J., Witek, C., Matsui, M., Modabber, Y., Ota, K. and Hafler, D. A. (1994b). "Clonal expansion and persistence of human T cells specific for an immunodominant myelin basic protein peptide." <i>J. Immunol.</i> 150: 5581-5592.	
	CV	Wucherpfennig, K. et al., "T-cell recognition of myelin basic protein." <i>Immunol. Today</i> , 12(8): 277-282 (1991).	
	CW	Zamvil, S. S. and Steinman, L. (1990). "The T lymphocyte in experimental allergic encephalomyelitis." <i>Annual Rev. Immunol.</i> 8: 579-621.	
	CX	Zhang, J., Markovic, S., Lacet, B., Raus, J., Weiner, H. L. and Hafler, D. A. (1994). "Increased frequency of interleukin 2-responsive T cells specific for myelin basic protein and proteolipid protein in peripheral blood and cerebrospinal fluid of patients with multiple sclerosis." <i>J. Exp. Med.</i> 179: 973-984.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/799005
				Filing Date	March 11, 2004
				First Named Inventor	James Rasmussen
				Art Unit	1646
				Examiner Name	Not Yet Assigned
Sheet	5	of	5	Attorney Docket Number	PEPT-P01-005

	CY	Zielinski et al., "Characterization and Regulation of the Pseudomonas aeruginosa algC Gene Encoding Phosphomannomutase." J. Biol. Chem., 266(15): 9754-9762 (1991).	
--	----	---	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--